

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) An implant having a surface, a surface structure on at least a portion of said surface, the surface structure improving ingrowth characteristics associated with the implant by promoting growth of cellular tissue in at least one direction relative to the surface of the implant.
2. (Original) The implant as set forth in claim 1, wherein the implant comprises a non-biosorbable material.
3. (Original) The implant as set forth in claim 2, wherein said surface structure is provided in a region of the implant, wherein, after the implant has been implanted in a body, the surface structure is generally adjacent to the skin.
4. (Original) The implant as set forth in claim 1, wherein the surface structure exhibits a width of approximately 1 to 10 mm.
5. (Original) The implant as set forth in claim 1, wherein the surface structure exhibits a width of approximately 4 to 5 mm.
6. (Original) The implant as set forth in claim 1, wherein the surface structure generally encircles the implant.
7. (Original) The implant as set forth in claim 1, wherein the surface structure comprises one or more grooves.

8. (Original) The implant as set forth in claim 7, wherein the depth of said at least one or more grooves is approximately 0.1 to 10 times the average width of a type of cell adjacent to the groove after the implant is implanted.
9. (Original) The implant as set forth in claim 7, wherein the depth of said at least one or more grooves is approximately 0.3 to 5 times the average width of a type of cell adjacent to the groove after the implant is implanted.
10. (Original) The implant as set forth in claim 7, wherein the depth of the at least one groove is approximately 1 to 10 μm .
11. (Original) The implant as set forth in claim 7, wherein the depth of the at least one groove is approximately 3 to 4 μm .
12. (Original) The implant as set forth in claim 7, wherein the width of the at least one groove is in the range of approximately 1 to 10 μm .
13. (Original) The implant as set forth in claim 7, wherein the width of the at least one groove is in the range of approximately 4 to 5 μm .
14. (Original) The implant as set forth claim 7, wherein, if more than one groove is provided, the distance of the grooves from each other is approximately 2 to 20 μm .
15. (Original) The implant as set forth claim 7, wherein, if more than one groove is provided, the distance of the grooves from each other is approximately 10 μm .
16. (Original) The implant as set forth in 7, wherein the ratio of the width of the groove to the depth of the groove is approximately 0.5 to 2.
17. (Original) The implant as set forth in claim 1, wherein at least two regions on the surface of the implant are provided with a surface structure.

18. (Original) The implant as set forth in claim 1, further comprising a holding structure with at least one passage.
19. (Original) The implant as set forth in claim 1, wherein the implant is a port body.
20. (Currently Amended) A method for producing an implant for implanting in a living body, comprising the step of providing a surface structure on a surface of said implant, wherein the surface structure promotes growth of cellular tissue in at least one direction relative to the surface of the implant [improves ingrowth characteristics associated with the implant].
21. (Original) The method as set forth in claim 20, wherein the surface structure is provided by turning a groove.
22. (Original) The method as set forth in claim 20, wherein the surface structure is provided by etching.
23. (New) The implant as set forth in claim 1, wherein the surface structure promotes growth of cellular tissue in a direction parallel to a skin surface into which the implant is inserted.
24. (New) The implant as set forth in claim 1, wherein the surface structure promotes growth of cellular tissue by orienting cell growth in a uniform direction relative to the surface structure of the implant.
25. (New) The method set forth in claim 20, wherein the surface structure promotes growth of cellular tissue in a direction parallel to a skin surface into which the implant is inserted.
26. (New) The method set forth in claim 20, wherein the surface structure promotes growth of cellular tissue by orienting cell growth in a uniform direction relative to the surface structure of the implant.